

**DEPARTMENT OF TRANSPORTATION****DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-010917**Date Inspected:** 27-Dec-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Li Yang**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG Trail Assembly**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector, S. Manjunath Math was present during the time noted above for observations relative to the work being performed.

This QA Inspector randomly observed the following work in progress:

Orthotropic Box Girder (OBG) Trial Assembly Areas

Segment 6AE

This QA Inspector observed ZPMC welding personnel performing Flux Cored Arc Welding (FCAW) for Edge Panel Hold back area weld Cross Beam side for Segment 6AE between Panel Point (PP) 40 and PP 41. Weld Identified as Seg 028-043. The welder was identified as 220069. In process FCAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-T-2232-Tc-U4b-F.

Segment 6BE

This QA Inspector observed ZPMC welding personnel performing Flux Cored Arc Welding (FCAW) for Edge Panel Hold back area weld Cross Beam side for Segment 6BE between Panel Point (PP) 40 and PP 41. Weld Identified as CA014-001. The welder was identified as 220069. In process FCAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-T-2232-Tc-U4b-F.

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### Segment 6AW to 6BW

This QA Inspector observed ZPMC personnel performing grinding for hold back welded areas for Edge Panel “T” Stiffeners Counter Weight Side between Panel Point (PP) 40 and PP 41 for Segment 6AW to 6BW.

### Segment 6AW to 6BW

This QA Inspector observed ZPMC personnel performing Magnetic Particle Test (MT) for Side Panel T-Ribs hold back weld any indication , Cross Beam Side and any in grinding for hold back welded areas for Edge Panel “T” Stiffeners Counter Weight Side between Panel Point (PP) 40 and PP 41 for Segment 6AW to 6BW.

### Segment 5BW to 5CW

This QA Inspector observed ZPMC personnel at Segment 5BW to 5CW between Panel Point (PP) 34 and PP 35 Side Panel T-Rib Cross Beam Side hold back area MT performed by ZPMC and any discontinuities discovered and marked, grinding is in progress for those areas.

### Segment 5AW to 5BW

This QA Inspector observed ZPMC personnel at Transverse splice weld Bottom Panel T-Rib to T-Rib cope hole weld termination area few location welding been performed for the same by pencil grinder for radius (smooth profile).

### Segment 5AE to 5BE

This QA Inspector observed ZPMC personnel at Bottom Panel at E3 and E4 location weld no. OBE5A-003 from outside/inside as per ABF Ultrasonic Test (UT), UT-5E-004 ½ Dated 12.08.2009 rejectable indications found at Y datum line 5200mm, 5400mm, 4600mm, 3820mm and 3685mm from reference and repair work been performed and repair work been performed and ZPMC has Approved as Noted Critical Weld Report (CWR) B-CWR-996 Rev.0 Dated 12.21.2009 for performing repair.

### Segment 5AE to 5BE

This QA Inspector observed ZPMC personnel at Bottom Panel at E4 and E6 location weld no. OBE5A-002 from outside/inside as per ABF Ultrasonic Test (UT), UT-5E-002 ½ Dated 10.22.2009 rejectable indications found at Y datum line 580mm from reference and repair work been performed and repair work been performed and ZPMC has Approved as Noted Critical Weld Report (CWR) B-CWR-996 Rev.0 Dated 12.21.2009 for performing repair.

### Segment 5AE to 5BE

This QA Inspector observed ZPMC personnel at Segment 5AE to 5BE between PP 31 and PP 32 Side Panel Bike path and Cross Beam side ABF was performing MT test for Transverse Splice and T-Rib hold back welded areas.

FL3

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## WELDING INSPECTION REPORT

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This QA Inspector observed ZPMC personnel at FL3 for Segment 5BE between PP 32 and PP 33 Floor Beam Flange Complete Weld Penetration (CJP) welded areas ZPMC has performed UT test and rejectable indications found for the same carbon arc gouging is in progress.

FL3

This QA Inspector observed ZPMC personnel at FL3 for Segment 5BW between PP 32 and PP 33 Floor Beam Flange Complete Weld Penetration (CJP) welded areas ZPMC has performed UT test and rejectable indications found for the same carbon arc gouging is in progress.

CB5

This QA Inspector observed ZPMC personnel at CB5 Deck Panel level stiffeners hold back welded area welding for Visual discontinuities between PP 38 to PP 39.

Segment 6AE to 6BE

This QA Inspector observed ZPMC personnel at Segment 6AE to 6BE between PP 40 and PP 41 Transverse Segment splice welded area flush grinding is in progress from internal side.

Segment 6AE to 6BE

This QA Inspector observed ZPMC personnel at Segment 6AE to 6BE Edge Panel to Side Panel Corner Assembly meeting area hold back area welding back gouged and welded from other side and flush grinding is in progress.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

### Summary of Conversations:

No relevant conversations.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact , who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Math,Manjunath	Quality Assurance Inspector
<b>Reviewed By:</b>	Miller,Mark	QA Reviewer

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